

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A screen-noise eliminating apparatus comprising:

a beam-spot-length control means element for increasing or decreasing the vertical length of a beam spot on a display screen generated by an electron beam of a cathode-ray tube for displaying a TV signal;

a vertical enhancement means element for enhancing a given vertical-direction spatial frequency characteristic of said TV signal; and

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a noise elimination control means element for controlling said beam-spot-length control means element and said vertical enhancement means element so as to compensate said vertical-direction spatial frequency characteristic according to the increase or decrease of said beam spot length.

2. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 1 wherein said noise elimination control means element provides control in a manner so as to reduce spurious in said vertical-direction spatial frequency corresponding to a scanning-line interval, and enhance the high band of said vertical-direction spatial frequency.

3. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 1 further comprising a second horizontal deflection ~~means~~element for modulating a scanning velocity of said electron beam in the horizontal direction wherein said noise elimination control ~~means~~element controls said second horizontal deflection ~~means~~element in a manner so as to reduce the high band of a horizontal direction spatial frequency characteristic according to the increase or decrease of said beam spot length.

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4. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 3 further comprising a horizontal enhancement ~~means~~element for enhancing a given horizontal-direction spatial frequency characteristic of said TV signal wherein said noise elimination control ~~means~~element controls said horizontal enhancement ~~means~~element in a manner so as to compensate said horizontal-direction spatial frequency characteristic according to the increase or decrease of said beam spot length.

5. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 1 further comprising a feature detection ~~means~~element for detecting an edge of an image to be displayed from said TV signal wherein said noise elimination control ~~means~~element controls to reduce the extent of increase or decrease in said beam

spot length upon an output from said feature detection ~~means~~element.

6. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 3 further comprising a feature detection means element for detecting an edge of an image to be displayed from said TV signal wherein said noise elimination control ~~means~~element controls to reduce the extent of said modulation of the scanning velocity in the horizontal direction in the edge section of the image upon an output from said feature detection ~~means~~element.

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7. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 1 further comprising a control information memory storing enhancement levels of the spatial frequency characteristic at respective positions on the screen wherein said noise elimination control ~~means~~element controls the increase or decrease of said beam spot length according to an output of said control information memory.

8. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 3 further comprising a control information memory storing enhancement levels of the spatial frequency characteristic at respective positions on the screen wherein said noise elimination control ~~means~~element causes to modulate said

scanning velocity in the horizontal direction according to an output of said control information memory.

9. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 1 wherein said noise elimination control means element controls said beam spot length to be lengthened in the vertical direction when the display screen is viewed from a distance closer than an adequate viewing distance, and controls said beam spot length to be unchanged and said given vertical-direction spatial frequency characteristic and horizontal-direction spatial frequency characteristic to be enhanced when the display screen is viewed from a distance farther than the adequate viewing distance.

10. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 1 wherein said vertical enhancement means element comprises:

a 1H delay meanselement for delaying said TV signal by one horizontal scanning line;

a 1-field delay meanselement for delaying said TV signal by 1 field;

a signal selection meanselement for selecting an output of said 1-field delay meanselement when a first control signal inputted from said noise elimination control meanselement indicates

an interlaced scanning signal, and selecting an output of said 1H delay ~~means~~element when said first control signal indicates a sequential scanning signal, and outputting said selected output;

a first coefficient multiplier ~~means~~element for multiplying said TV signal by a first coefficient determined by a second control signal outputted from said noise elimination control ~~means~~element;

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a second coefficient multiplier ~~means~~element for multiplying the output from said signal selection ~~means~~element by a second coefficient determined by said second control signal;

a third coefficient multiplier ~~means~~element for delaying the output from said signal selection ~~means~~element by 1H and multiplying it by a third coefficient determined by said second control signal; and

an adder ~~means~~element for outputting a summed signal which represents a sum of the output of said first coefficient multiplier ~~means~~element, the output of said second coefficient multiplier ~~means~~element and the output of said third coefficient multiplier ~~means~~element.

11. (Currently Amended) A screen-noise eliminating apparatus as claimed in claim 4 wherein said horizontal enhancement ~~means~~element comprises:

a fourth coefficient multiplier means-element for multiplying said TV signal by a fourth coefficient determined by a third control signal inputted from said noise elimination control ~~means~~element;

a fifth coefficient multiplier means-element for delaying said summed signal by 1-pixel time and multiplying it by a fifth coefficient determined by said third control signal;

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a sixth coefficient multiplier means-element for delaying said summed signal by 2-pixel time and multiplying it by a sixth coefficient determined by said third control signal; and

an adder means-element for outputting another summed signal which is a sum of the output of said fourth coefficient multiplier means, the output of said fifth coefficient multiplier ~~means~~ element and the output of said sixth coefficient multiplier ~~means~~element.

12. (Currently Amended) A cathode-ray tube display apparatus comprising:

a cathode-ray tube for displaying a TV signal;

an electron-beam driving means-element for driving an electron beam of said cathode-ray tube; and

a screen-noise eliminating apparatus, wherein said screen-noise eliminating apparatus comprises: [[]]

a beam-spot-length control means—element for increasing or decreasing the length of a beam spot on a display screen generated by said electron beam in the vertical direction;

a vertical enhancement means—element for enhancing a given vertical-direction spatial frequency characteristic of said TV signal; and

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a screen-noise elimination control means—element for controlling said beam-spot-length control means—element and said vertical enhancement means—element so as to compensate said vertical-direction spatial frequency characteristic according to the increase or decrease of said beam spot length.

13. (Currently Amended) A cathode-ray tube display apparatus as claimed in claim 12 wherein said electron-beam driving ~~means~~ element comprises an electrostatic focus electrode, and said beam-spot-length control ~~means—element~~ comprises a driving circuit for said electrostatic focus electrode.

14. (Currently Amended) A cathode-ray tube display apparatus as claimed in claim 12 wherein said electron-beam driving ~~means~~ element comprises an electromagnetic focus coil, and said beam-spot-length control ~~means—element~~ comprises a driving circuit for said electromagnetic focus coil.

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15. (Currently Amended) A cathode-ray tube display apparatus as claimed in claim 12 wherein said electron-beam driving ~~means~~ element comprises a second vertical deflection coil, and said beam-spot-length control ~~means~~ element comprises a driving circuit for said second vertical deflection coil.

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